

## MAE 530 Spring 2006 Course Outline

Instructor: Bernard Maskit

Office: Math 5-112

Telephone: 632-8257

e-mail: bernie@math.sunysb.edu

Office Hours: Monday, 1:00 - 3:00 p.m. - by appointment only

Monday, 3:00 - 4:00 p.m.

Wednesday, 12:00 a.m. - 1:00 p.m. in P-143

Wednesday, 2:00 - 3:00 p.m.

Thursday, 1:00 - 4:00 p.m. - by appointment only

Friday, 1:00 - 4:00 p.m. - by appointment only

Class meeting time and place: Math 4-130, 5:00 - 5:55 p.m.

This course is predominantly a writing course, but it will also include classroom discussions of relevant issues, particularly issues related to dispositions. Each student will write two essays, each six to eight pages long, on topics to be chosen from the lists of topics below.

Course Objectives:

1. Students will write in a manner that is grammatically correct and clearly expresses their ideas.
2. Students will write essays with clear and cogent arguments based on reliably obtained facts.
3. Students will develop dispositions that are appropriate for teachers.

### **TIMELINE:**

First draft of first paper due: 02/22/06

Final draft of first paper due: 03/17/06

First draft of second paper due: 04/19/06

Final draft of second paper due: 05/05/06

**GRADING:** Each paper is worth 45 points, and the final 10 points comes from class participation and discussion.

**First Paper:** Choose one of the two scenarios below, and write a six to eight page paper presenting both sides of the issue as fairly as you can. You must include some number of relevant facts, obtained from reliable sources, and you must reference your sources.

1. Your high school algebra class has about ten reasonably bright students, who are all doing well in mathematics class and who all hang out together; the class also contains about ten other students who also all

hang out together, but these students all have difficulty learning math. The parents of the first group are loud in their insistence that their children be grouped together and be given extra advanced work, while the parents of the second group are loud in their insistence that their children be placed in heterogeneous groups, each of these parents saying that another child in this group is a "bad influence" on the others.

2. Your class is learning about 3-dimensional shapes and volumes, and you have some models of these shapes for your students to handle, measure, etc. There is a "special" student in your class whose tactile senses work differently; this student is learning about these shapes etc. visually, using a special computer program. The other students are fascinated by the computerized special effects; the parents of the "special" student complain that the other students are distracting their child, and that the special equipment is for the use of their child only; the parents of the other children complain that their children are being deprived because their children do not have access to this expensive piece of equipment.

### **Grading for the first paper:**

Importance and relevance of quoted facts - 10 points

Cogency of argument and fairness - 15 points

English usage, including grammatical structure - 10 points

Expressions of awareness of sensibilities - 10 points

**Second Paper:** Pick one of the scenarios below, and write a six to eight page paper asking the question: Assuming that you are the teacher, what should you do? How should you handle the situation? Can you find something in the literature (or on the web) that would be helpful?

1. Robin and Hilary are working together in the same group on a geometry problem. Robin quickly writes down an equation representing the problem, and starts leading the group into a discussion of how to solve the equation. Hilary complains that s/he thinks geometrically, doesn't want to solve the problem algebraically and doesn't want to follow Robin's lead. (You may choose the gender of these students to suit your argument.)

2. Alex shows some signs of understanding when called on, but never volunteers. S/he does very little homework, and is close to failing on exams. Alex's parent comes to open school night and says that s/he is concerned but is overburdened with work and other family responsibilities, and has no time or energy to help Alex.

### **Grading for the second paper:**

Importance and relevance of quoted facts - 10 points

Consistency and cogency of your argument - 15 points

English usage, including grammatical structure - 10 points

Expressions of awareness of sensibilities - 10 points.

**NOTE:** If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I urge that you contact the staff in the Disability Support Services office (DSS), 128 Educational Communications Center, 632-6748/TDD 632-6548. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential. Note that we cannot make special arrangements for students with disabilities except for those determined by DSS.